

FIG. 1

A

Subgroups

<i>Anthracis</i>	76	93	133	180	209	286	1014	1046
	TAGAGCTTGCTCTATG		G	ACACATTGAAACCGCATGGTTCGAATTGAA		A	ACACCCATAGAGATGGCCTTCCTTCGGAG	
<i>Cereus A</i>								
<i>Cereus B</i>								
<i>Thuringiensis A</i>								
<i>Thuringiensis B</i>								
<i>Mycoides A</i>								
<i>Mycoides B</i>								

B

Reference microorganisms

<i>B. anthracis</i> str. Ames	74	93	133	180	209	286	1014	1046
	TAGAGCTTGCTCTATG		G	ACACATTGAAACCGCATGGTTCGAATTGAA		A	ACACCCATAGAGATGGCCTTCCTTCGGAG	
<i>B. thuringiensis</i> str. B8								
<i>B. cereus</i> str. NCTC9620								
<i>B. cereus</i> str. T								
<i>B. thuringiensis</i> str. 4Q281								
<i>B. medusa</i> str. ATCC25621								
<i>B. mycoides</i> str. ATCC6432m								
<i>B. mycoides</i> str. ATCC10206								

<i>B. anthracis</i> str. Ames	74	93	133	180	209	286	1014	1046
	TAGAGCTTGCTCTATG		G	ACACATTGAAACCGCATGGTTCGAATTGAA		A	ACACCCATAGAGATGGCCTTCCTTCGGAG	
<i>B. thuringiensis</i> str. B8								
<i>B. cereus</i> str. NCTC9620								
<i>B. cereus</i> str. T								
<i>B. thuringiensis</i> str. 4Q281								
<i>B. medusa</i> str. ATCC25621								
<i>B. mycoides</i> str. ATCC6432m								
<i>B. mycoides</i> str. ATCC10206								

c-ps1_GAGCGAATGGATTAAGAGCT c-SB1

c-ps2_GAGCGAATGGATTAAGAGCT c-#41

c-ps3_AGCCTGCTTATGAGGTT c-SB15

c-ps4_AGCCTGCTTCAAGAGTTA c-SB16

c-ps5_TGGCTCTTATGAGGTTAGGG c-SB4

c-ps6_TGGCTCTCAAGAGTTAGGG c-SB4-1

c-ps7_CATTTCGACCGCATGGTTC c-SB12

c-ps8_CATTTCGACCGCATGGTTC c-#44

c-ps9_CATTTCGACCGCATGGTTC c-SB12

c-ps10_CATTTCGACCGCATGGTTC c-SB17

c-ps11_RACCGCATGGTTCGDAANTG c-SB9

c-ps12_RACCGCATGGTTCGDAANTG c-SB8

c-ps13_ATGGTTCAAATGAAAGGC c-SB10

c-ps14_ATGGTTGCGAAATGAAAGGC c-SB11

c-ps15_GAAATTGAAAGGGCCTTCG c-#54

c-ps16_GAAATTCAAAGGGCCTTCG c-SB25

c-ps17_CATCCCTGACACCTPAGA c-SB23

c-ps18_CATCCCTGAAACCCCTPAGA c-SB22

Anthracis, Cereus A + c-ps19_GCTTCCTTCGGGAGCAGA c-SB26
Mycoides B c-ps20_GCTTCACCTCGGGGAGCAGA c-SB27

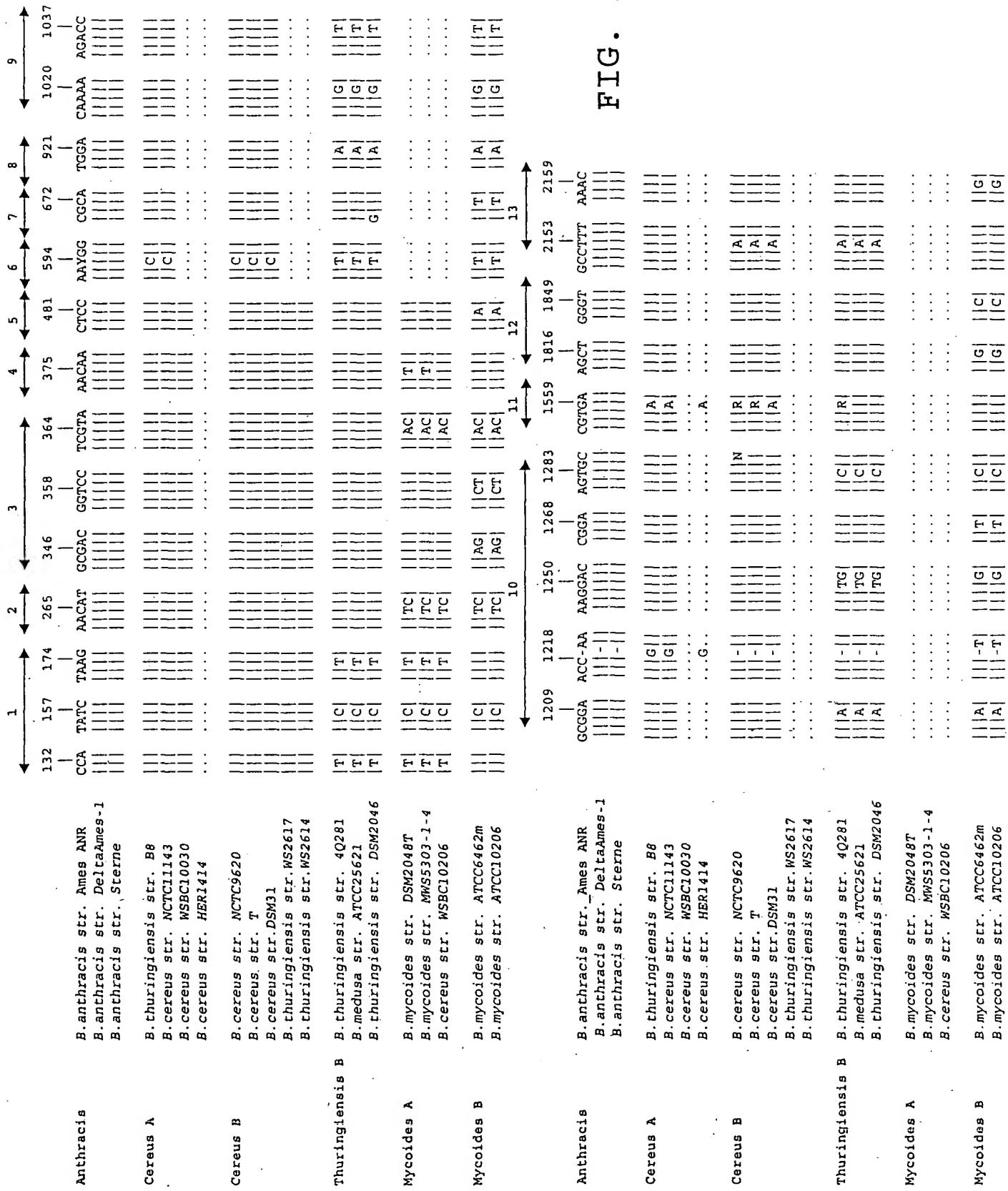
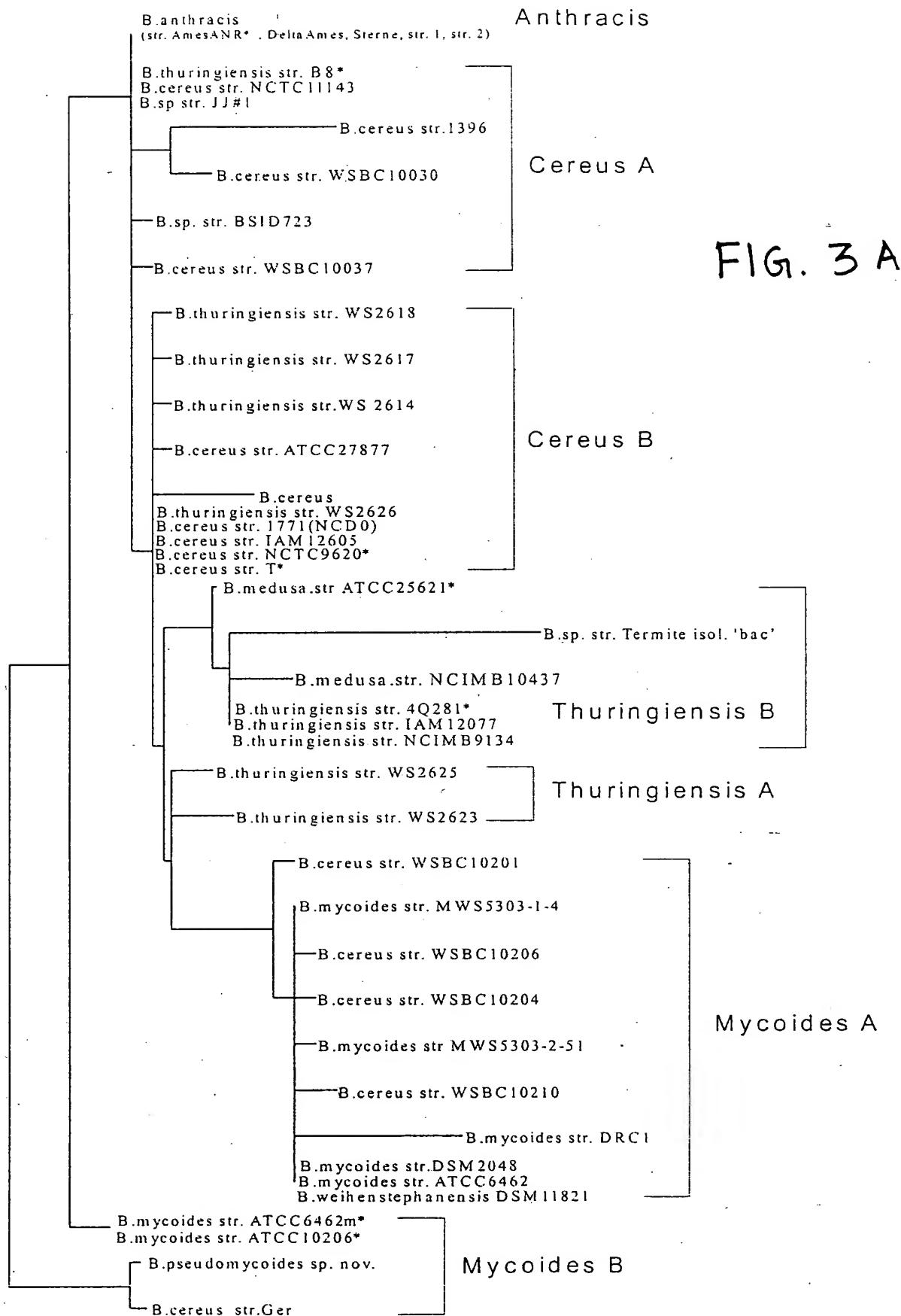


FIG. 2

$\boxed{c\text{-ps23}_-TGATACCAATGGTATAGTG\ c\text{-B11}}$
 $c\text{-ps24}_-TGATACCGAATGGTATAGTG\ c\text{-B12}$
 $c\text{-ps21}_-TTATCGTGAAGGCTGAGCTG\ c\text{-C11}$
 $c\text{-ps22}_-TTATCGTAAAGGCTGAGCTG\ c\text{-C12}$

Cereus A

Cereus B



B.anthracis str. Ames ANR*
B.anthracis str. Delta Ames
B.anthracis str. Sterne

Anthracis

B.thuringiensis str. B8*
B.cereus str. NCTC11143

Cereus A

B.cereus str. DSM31

Cereus B

B.cereus str. T*
B.cereus str. NCTC9620*

B.thuringiensis str. 4Q281*

Thuringiensis B

B.medusa str ATCC25621*

B.thuringiensis str. DSM2046

B.mycoides str ATCC6462m* *Mycoides B*
B.mycoides str ATCC10206*

FIG. 4

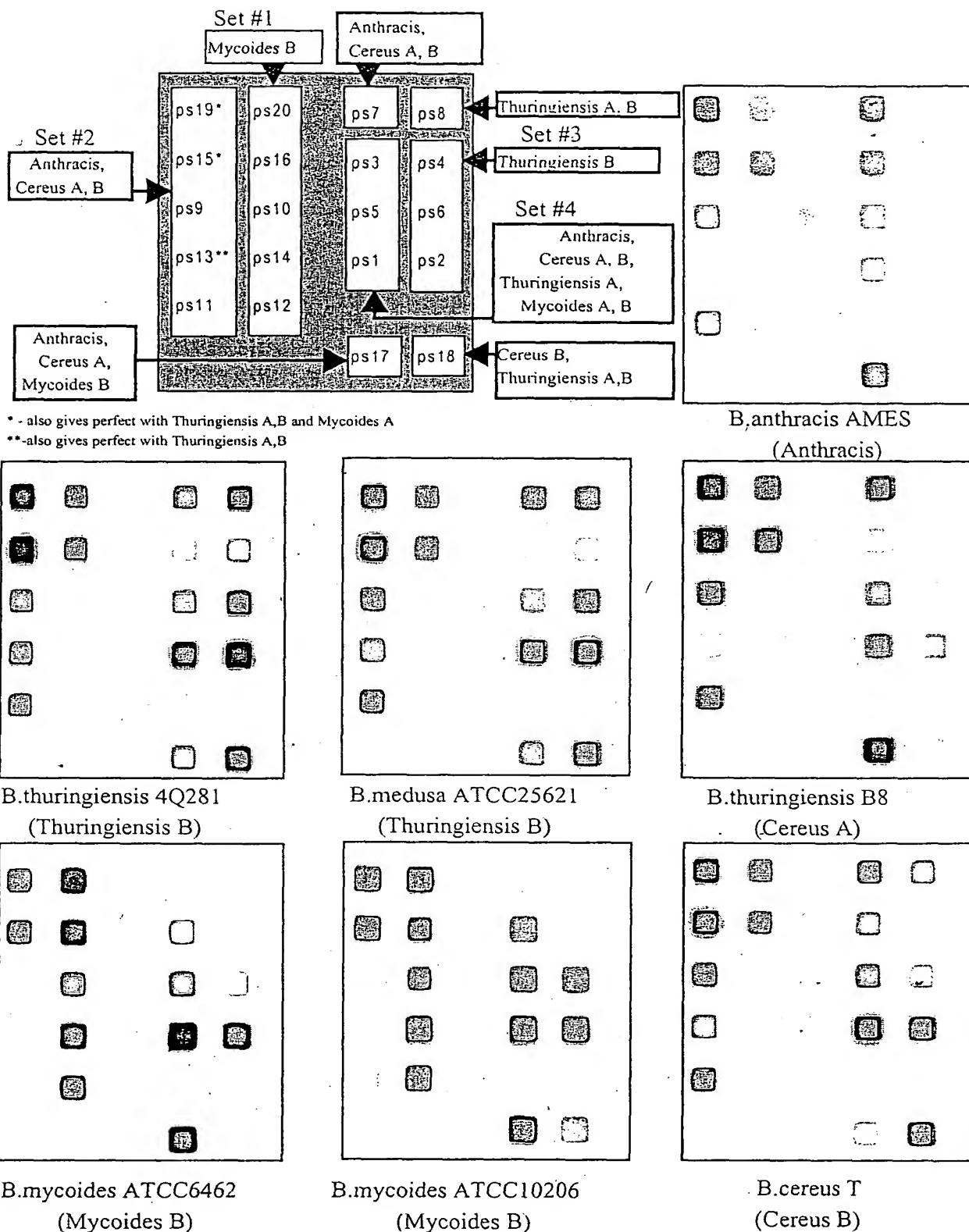


FIG. 5A

	ps21/ps22	ps21/ps22 signal ratio	site 1559 in 23S rRNA	G/A ratio in site 1559
<i>B. anthracis</i> Ames (Anthraxis)		1.80	G	-
<i>B. mycoides</i> ATCC10206 (Mycoides B)		1.50	G	-
<i>B. cereus</i> T (Cereus B)		1.00	R	1.5
<i>B. thuringiensis</i> 4Q281 (Thuringiensis B)		0.72	R	1
<i>B. cereus</i> NCTC9620 (Cereus B)		0.64	R	0.3
<i>B. thuringiensis</i> B8 (Cereu A)		0.45	A	-

FIG. 5B

Subgroup	ps21/ps22 signal ratio	ps21/ps22 signal ratio	ps23/ps24 signal ratio	ps23/ps24 signal ratio	ps18/ps17 signal ratio	
<i>B. cereus</i> HER 1414		0,7		0,7		0,2
<i>B. thuringiensis</i> B8		0,4		0,4		0,2
Anthracis <i>B. anthracis</i> Sterne		2,2		1,7		0,2

FIG. 6

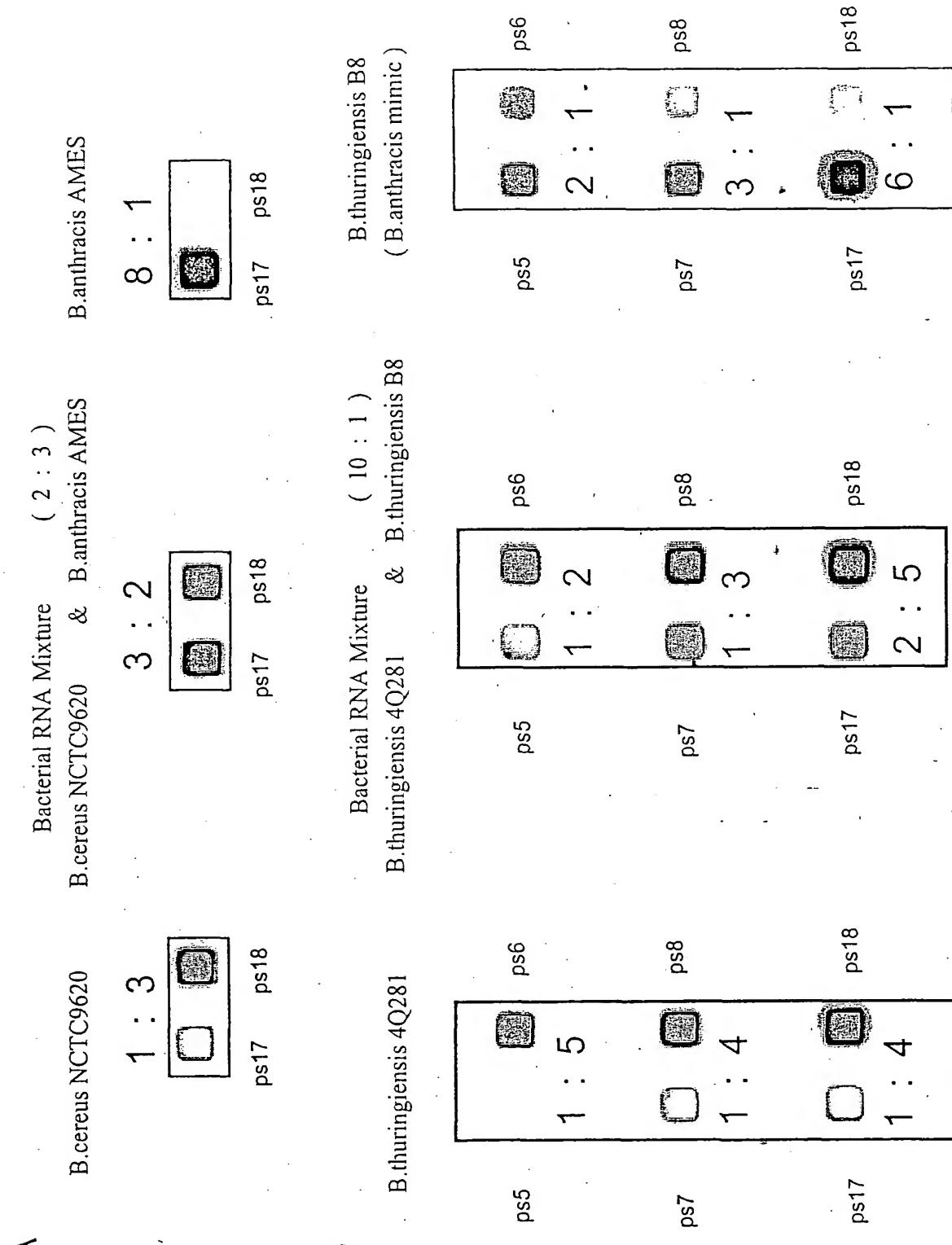


FIG. 7

Microorganism	Cereus group	Subtilis group	Signal ratio
B.anthracis AMES			9.5
B.cereus T			8.3
B.mycoides ATCC6462m			7.8
B.thuringiensis 4Q281			8.1
B.subtilis B-459			0.4

ps 25

ps 26

FIG. 8

23F1 not Myc A+B	23F2 Myc A+B	#54 not Myc B	SB25 Myc B	B1 Antr, Cer A+B	B2 Thur B Myc B	SB22 not Antr, Cer A, Myc B	SB24 Antr, Cer A+B	A1 not Thur B+Myc A
23F5 not Myc A	23F6 Myc A	SB10 not Myc B	SB11 Myc B	B7 Antr, Cer A+B	B8 Thur B Myc B	B11 Antr	B12 Cer A	A2 not Thur B+Myc A
23F7 not Myc A	23F8 Myc A		E7 Hybrid Marker	C5 Antr, Cer A+B	C6 Thur B Myc B	C9 Antr	C10 Cer A	A5 not Thur B+Myc A
16A1 not Myc A	16A2 Myc A	A7 not Myc B	AP Myc B	C7 Antr, Cer A+B	C8 Thur B Myc B		E7 Hybrid Marker	A3 not Thur B+Myc A
16A3 not Myc A	16A4 Myc A	23F3 not Myc B	23F4 Myc B	A3 Antr, Cer A+B	A4 Thur B Myc B	C11 Antr	C12 Cer A	A9 not Thur B+Myc B
16A5 not Myc A	16A6 Myc A	E7 Hybrid Marker				SB12 B+med not Thur A B	#44 Thur A+B	A10 not Thur B+Myc B
16A7 not Myc A	16A8 Myc A	SB23 Antr, Cer A, Myc B	SB22 not Antr, Cer A, Myc B	23F13 Antr	23F14 Cer A	SB15 not Thur B	SB16 Thur B	A11 not Thur B+Myc B
16A9 not Myc A	16A10 Myc A	D1 Antr, Cer A, Myc B	D2A not Antr, Cer A, Myc B	23F15 Antr	23F16 Cer A	SB4 not Thur B	SB4 Thur B	A12 not Thur B+Myc B